

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Hope et al.	)	Attorney Docket No. P1559USA/CIP
	)	
Serial No.: 09/429,723	)	Group Art Unit: 1661
	)	
Filing Date: October 29, 1999	)	Examiner: A. Grunberg
	)	
For: Mutant Apical Dominance Gene in	)	
<i>Eustoma</i>	)	

DECLARATION AS TO THE DEPOSIT OF SEEDS

Commissioner of Patents  
Washington, DC 20231

Sir:

1. I, Lisa V. Mueller, am the attorney-of-record in the above-mentioned pending U.S. Patent Application Serial No. 09/429,723 entitled, "Mutant Apical Dominance Gene in *Eustoma*" which was filed on October 29, 1999 in the United States Patent and Trademark Office;

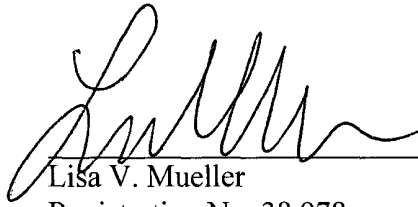
2. Two thousand five hundred seeds (2500) of *Eustoma* hybrid 3087 were deposited on October 30, 1998 pursuant to the Budapest Treaty at the American Type Culture Collection, 10801 University Blvd., Manassas, Virginia 20110-2209;

3. This deposit meets the criteria set forth in 37 C.F.R. Sections 1.801-1.809. The deposit is designated as 203392.

4. These seeds will be available during the pendency of the above-identified patent application to one determined by the Commissioner of Patents and Trademarks to be entitled thereto under 37 C.F.R. Section 1.14 and 35 U.S.C. Section 122;

5. Upon issuance of a patent on the above-identified application, all restrictions as to public availability of this seed deposit will be irrevocably and without restriction or condition removed and said seed deposit will be replaced should the depository be unable to distribute the sample upon a proper request, during the period that extends thirty years from the date of deposit, or the period of the enforceable life of the patent, or the period of five years after the last public request for the deposit, whichever period is longest. However, it is to be understood that the availability of a deposit does not constitute a license to practice the subject invention in derogation of patent rights granted by governmental action; and

6. I declare further that all statements made on information and belief are believed to be true, and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and such willful false statements may jeopardize the validity of the instant patent specification or any patent issuing thereon.

  
\_\_\_\_\_  
Lisa V. Mueller                      January 25, 2002  
Registration No. 38,978              Date  
Attorney for the Applicants

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Hope et al.

Serial No.: 09/429,723

Filed: October 29, 1999

Title: Mutant Apical Dominance Gene in  
*Eustoma*

Group Art Unit 1616

Examiner: A. Grunberg

Commissioner for Patents  
Washington, D.C., 20231

Sir:

**DECLARATION OF LYNNE KNOSHER PURSUANT TO 37 C.F.R. §1.132**

I, Lynne Knosher declare as follows:

1. I am one of the inventors of the above-identified application.
2. I am currently employed by Ball Horticultural Company (hereinafter "Ball"), the assignee of the present invention, as a plant breeder. I have been employed by Ball for a period of about thirteen (13) years. Prior to my employment with Ball, I was employed by Amlings Flowerland as an Assistant Manager.
3. I received my Bachelors degree in Ornamental Horticulture from University of Illinois in 1976.
4. I have reviewed the Office Action mailed on September 28, 2001 in connection with the above-identified application. I understand from reading the Office Action that claims 1, 4-8 and 13-14 are rejected as being anticipated under 35 U.S.C. Section 102(b) and claims 1-11 and 13-18 as being obvious under 35 U.S.C. Section 103(a) in view of Griesbach et al., *HortScience*, 23(4):790-791 (1988) (hereinafter "Griesbach et al.").

I have studied the article by Griesbach et al. cited by the Examiner in the Office Action. According to Griesbach et al., the branching of his *Eustoma* plants is temperature sensitive. This is described on page 790, in the third column, where Griesbach et al. state that “[U]nder cool conditions, not higher than 16°C at night, plants flowered in 150 days with two to four basal branches, and the total number of flowers was between 30 and 50. At temperatures higher than 22°C at night, plants flowered in 90 days with no basal branches” (emphasis added).

As discussed in more detail below in Paragraph 5, the reduced apical dominant plants of the present invention are not temperature sensitive and exhibit the trait of reduced apical dominance even at temperatures above 72°F.

5. In March of 2001, I conducted a greenhouse trial involving a number of *Eustoma* plants that contained a reduced apical dominance allele as described in the above-identified application. The purpose of this trial was to recover reduce apical dominant seedlings that did not rosette at high temperatures.<sup>1</sup>


The *Eustoma* plants employed in the greenhouse trial were selected from F<sub>2</sub> segregating populations produced from the selfed seed of twenty-two (22) F<sub>1</sub> independent *Eustoma* plants. With the exception of a control cross, all F<sub>1</sub> *Eustoma* plants contained the reduced apical dominant allele from line 752 in their pedigree. Since the purpose was to generate segregating populations, not all of the F<sub>1</sub> *Eustoma* plants were homozygous for the reduced apical dominance allele (i.e., some were heterozygous for the reduced apical dominance allele). After the cross was made, I randomly selected F<sub>2</sub> seeds to be planted. The selected F<sub>2</sub> seeds from the above-described crosses were then planted in trays. After an eight (8) day 75°F germination period, the seedlings in the trays were placed on a heat mat in a greenhouse and were consistently subjected to temperatures of about 90°F and higher for a period of about six (6) weeks. After this time, evaluations were made from the segregating populations to recover seedlings that did not rosette under these conditions and exhibited the reduced apical dominance phenotype. The described

---

<sup>1</sup> One key to a successful *Eustoma* crop is keeping the plant from rosetting. A rosette is a circular cluster of leaves that radiate from a center at or close to the soil level, as in the dandelion. In *Eustoma*, this is considered an induced resting stage, which is difficult to reverse.

phenotype was observed in all twenty-one (21) populations that contained the reduced apical dominance allele. There were no reduced apical dominant seedlings from the control cross.

6. I declare further that all statements made on information and belief are believed to be true, and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and such willful false statements may jeopardize the validity of the instant patent specification or any patent issuing thereon.

 Jan. 21, 2002  
Lynne Knosher Date

GARDNER, CARTON & DOUGLAS  
321 N. Clark Street  
Chicago, IL 60610  
(312)-644-3000

CH02/22168186.1